

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010971**Date Inspected:** 22-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Liu Fawen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder (OBG) Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY 3

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW):

Weld joint # 045 located on Corner Assembly CA3001. Welder is identified as 044824. ZPMC Quality Control (QC) Inspector is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – Tc – U4b – F.

Weld joint # 022 located on Longitudinal Diaphragm LD3007 – 001. Welder is identified as 208035. ZPMC Quality Control (QC) Inspector is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

Weld joint # 043 located on Corner Assembly CA3001. Welder is identified as 044824. ZPMC Quality Control (QC) Inspector is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

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Weld joint # 008 located on Longitudinal Diaphragm LD3007 – 001. Welder is identified as 204338. ZPMC Quality Control (QC) Inspector is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

BAY 5

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW):

Weld joint # 014 located on Traveler Rail 11TR2 – 006. Welder is identified as 217185. ZPMC Quality Control (QC) Inspector is identified as Shen Jian Guo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

Weld joint # 014 located on Traveler Rail 11TR1 – 017. Welder is identified as 067601. ZPMC Quality Control (QC) Inspector is identified as Shen Jian Guo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

Weld joint # 011 located on Traveler Rail 11TR2 – 018. Welder is identified as 250353. ZPMC Quality Control (QC) Inspector is identified as Shen Jian Guo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

Weld joint # 009 located on Traveler Rail 11TR12 – 002. Welder is identified as 066734. ZPMC Quality Control (QC) Inspector is identified as Shen Jian Guo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

This QA Inspector observed the following work not in compliance:

During a random visual inspection of the Orthotropic Box Girder (OBG) Cantilever Beam End Plates at Bay # 5, the Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel performing base metal repairs on Two (2) Cantilever Beam End Plates without the Engineer's approval.

-The End Plates are identified as: BKX3C

-The Welding Procedure Specification (WPS) used was WPS-345-SMAW-1G (1F)-Repair.

Applicable reference:

Standard Specifications (99) section 8-3.01: "The Engineer shall be notified immediately in writing when welding problems, deficiencies, base metal repairs, or any other type of repairs not submitted in the WQCP are discovered and also of the proposed repair procedures to correct them. For requests to perform repairs,

The contractor shall include an engineering evaluation of the proposed repair."

ZPMC Welding Quality Control Plan, Section 9.2.1.2: "Prior approval of the Engineer shall be obtained for repairs to base metal other than what was identified in Section 9.2.1.1 of this manual and the repair of all other cracks."

AWS D1.5/2002, Section 3.7.4: "Prior approval of the Engineer shall be obtained for repairs to base metal."

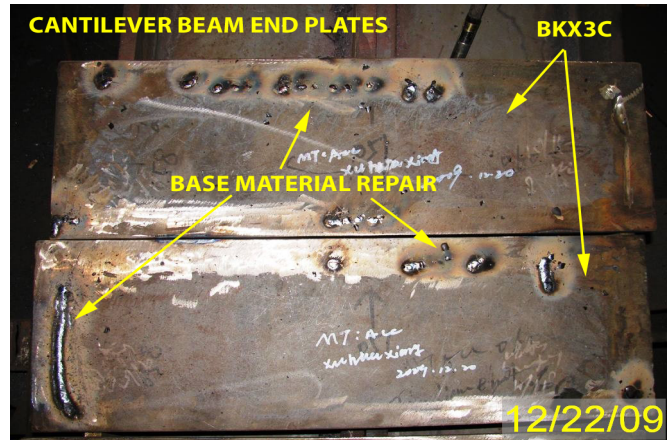
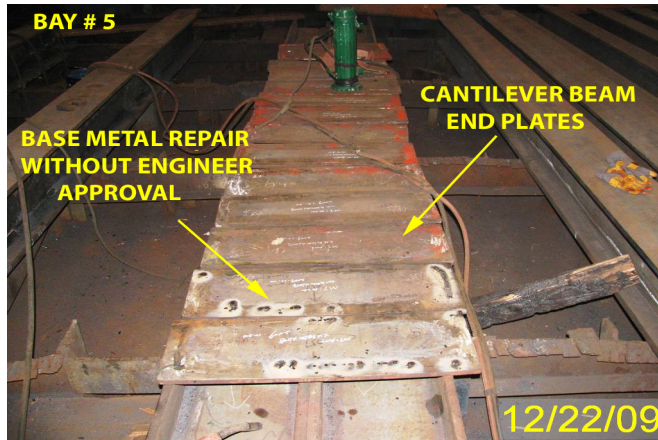
This QA notified ZPMC CWI identified as Mr. Liu Fawen and ABF inspector identified as Mr. Wang Wen Bin of the above issue and that an incident report will be generated.

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See attached photos:

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Kumar,Sandeep

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer